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AN EXPERIMENTAL STUDY OF THE DEVELOPMENT OF CRITICAL THINKING SKILLS OF HIGH SCHOOL ENGLISH TEACHERS ENROLLED IN A METHODS COURSE. INTERIM REPORT.

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A STUDY AT LOYOLA UNIVERSITY (CHICAGO), SPONSORED BY THE ILLINOIS STATE-WIDE CURRICULUM STUDY CENTER IN THE PREPARATION OF SECONDARY SCHOOL ENGLISH TEACHERS (ISCPET), TESTED THE HYPOTHESIS THAT "PERSONS ASPIRING TO BECOME TEACHERS OF ENGLISH IN HIGH SCHOOL CAN BE ALERTED AND TRAINED IN SOME OF THE VARIED, SPECIFIC, SEPARABLE, AND MEASURABLE SKILLS WHICH ARE NEEDED FOR CRITICAL THINKING AND WHICH ARE RELEVANT TO A HIGH SCHOOL ENGLISH PROGRAM, AND THAT THIS TRAINING SHOULD HAVE AN EFFECT UPON THE TEACHERS' ABILITIES TO THINK CRITICALLY." BOTH AN EXPERIMENTAL GROUP (FALL, 1965) AND A CONTROL GROUP (WINTER, 1966) WERE EXPOSED TO THE USUAL CONTENT OF THE ENGLISH METHODS COURSE, EXCEPT THAT THE EXPERIMENTAL GROUP RECEIVED INSTRUCTION RELATIVE TO CRITICAL-THINKING. THIS LATTER GROUP ALSO STUDIED THE OPERATIONS OF THE MIND AS DEFINED BY GUILFORD, THE NEED FOR A "COGNITIVE" RATHER THAN A "STIMULUS-RESPONSE" BIAS IN TEACHING, AND POSSIBLE METHODS USED WITHIN A HIGH SCHOOL ENGLISH PROGRAM TO DEVELOP SKILLS OF CRITICAL THINKING. THE PROGRAM WAS EVALUATED BY PRE- AND POST-TESTS USING THE "WATSON-GLASER CRITICAL THINKING APPRAISAL" AND AN ADAPTATION OF THE "DRESSEL-MAYHEW TEST." THE DIFFERENCES IN PERFORMANCE OF THE EXPERIMENTAL OVER THE CONTROL GROUP WERE POSITIVE BUT STATISTICALLY NONSIGNIFICANT. POSITION PAPERS AND QUESTIONNAIRES COMPLETED BY STUDENTS IN BOTH GROUPS REVEALED THAT THOSE EXPOSED TO THE EXPERIMENTAL PROGRAM HAD BECOME MORE AWARE AND APPRECIATIVE OF THE VALUE OF TEACHING FOR CRITICAL THINKING THAN HAD STUDENTS IN THE CONTROL GROUP. (THIS DOCUMENT IS ALSO AVAILABLE (LIMITED SUPPLY, FREE) FROM ISCPET, 1210 WEST CALIFORNIA, UNIVERSITY OF ILLINOIS, URBANA, ILL. 61801.) SEE ALSO TE 000 470. (AUTHOR/RD)

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# An Experimental Study of the Development of Critical Thinking Skills of High School English Teachers Enrolled in a Methods Course

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ILLINOIS STATE-WIDE CURRICULUM STUDY CENTER
IN THE PREPARATION OF SECONDARY
SCHOOL ENGLISH TEACHERS (ISCPET)

# An Experimental Study of the Development of Critical Thinking Skills of High School English Teachers Enrolled in a Methods Course

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May, 1968

The research reported herein was performed pursuant to a contract with the Office of Education, U.S. Department of Health, Education, and Welfare and to a subcontract with the Illinois State-Wide Curriculum Study Center in the Preparation of Secondary School English Teachers, University of Illinois, Urbana, Illinois. Contractors and subcontractors undertaking such projects under government sponsorship are encouraged to express freely their professional judgment in the conduct of the projects. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
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# I. INTRODUCTION

## A. Problem, Background, and Review of Related Research

The late President Kennedy in his February 20, 1961 message to Congress on education reminded Americans that the human mind is a fundamental resource, that progress as a nation can be no swifter than progress in education, and that America must be concerned with the development of every young American's capacity.

The possibilities of developing that capacity have always been recognized by educators. Whether one begins with the warnings of Socrates about being wise enough not to trust unchecked judgments, whether one examines formal statements made by educational organizations, or whether one scrutinizes the research of individual psychologists and educators, one reaches the same conclusion: teaching students to think always ranked and still ranks high as an educational objective.

In 1952 the Commission on the English Curriculum of the National Council of Teachers of English made a forceful statement (7):

> ...democracy at its best demands of its citizens ability to think clearly, to attack problems intelligently, and to exercise critical judgments ...at every level of instruction they should have opportunity to set forth their ideas concerning topics of interest to them, to substantiate their statements with evidence, to draw inferences carefully, and to order their ideas clearly for presentation to others. At the same time they should have practice in those skills which freedom of speech and of press demand of the listener and the reader. They should evaluate critically ideas found in newspapers, books and magazines, heard in discussion or over the radio, or presented on the screen, learning in the process to validate authority, to distinguish fact from opinion, to recognize untoward emotional appeal, and to detect false inference or unsubstantiated generalizations.

In the 1953 Review of Educational Research, David Russell (22) encouraged the study of the problem when he wrote:

> The study of children's thinking is a wide-open field for research workers in education and child development. Many investigations of children's percepts, memories, fantasies, and the way they do problem solving, critical thinking, and creative thinking are still needed, especially in the group or classroom setting. Only then can the aim of "teaching pupils how to think" operate in most classrooms as well as in those of some gifted teachers today.

The Educational Policies Commission of the NEA in 1961 said in "The Central Purpose of American Education" that the common threat of education is the development of the ability to think.

Russell summarized the findings of psychologists by telling us that although the aspects of mental life have only begun to be explored, there is considerable agrement by psychologists that the processes of thinking are probably very few, though the materials of thinking are multitudinous. Hundreds or thousands of percepts, memories, and conceptions can be used in only four or five different ways: associative thinking, convergent thinking, and problem solving with its interchangeable steps of identification, data gathering, hypothesizing, and testing. The latter comes close to the related activity of critical thinking. He thought that this was of enormous importance to teachers. Thinking activities must be varied in the typical classroom, but this variation exists largely in the materials--in the wide range of ideas or the content of the modern curriculum.

Raths, Jonas, Rothstein, and Wasserman in Teaching for Thinking (20) express similar convictions when they say that evidence from many sources indicates that thinking as an aim is given much lip service but very little practical application in the classroom. They agree that there is no profound reconstruction of the curriculum necessary in order to employ thinking operations. They reviewed related research which supports the following conclusions:

> There are ways to stimulate thinking; actual increases in thinking test scores can take place.
>
> When there is an emphasis upon thinking, the behavior of children can change during the work of a semester without sacrifice in the usual subject matter achievements.

Interest in the topic has been shown by other investigators among whom are Edward Glaser (11), Paul Dressel (9,10), Kenneth Henderson (14), B. Othaniel Smith (25), Mary Jane Aschner (2,3) and Hilda Taba (26).

J.P. Guilford (12) offers an enlightening explanation to the problem of learning and transfer. In his analysis of the principles in regard to the structure of the intellect, he states that there are basically five kinds of operations as indicated by five kinds of factors, four kinds of content, and six kinds of products. (see A-1, page 24) He suggested that this theory may have implications for the teaching of critical thinking. It places emphasis on the individual as an agent for dealing with information, varieties of information, its sources, and the kinds of products that the individual makes of it.

In the 1960 edition of the Encyclopedia of Educational Research (21) David Russell made the comment that the breadth of the topic and the variety of recent investigation indicate the growing importance of the problem of teaching for thinking. Current interest in the topic is also reflected by the large number of recent publications in the area.

However, Russell began his discussion of critical thinking by stating that the volume of research is not commensurate with the frequency of the use of the term in statements of educational objectives and curriculum materials.

In a culture where some stress is placed on conformity, critical thinking may be one of the most important abilities taught in school. Children can learn to be critical of what they read or hear and be stimulated to various creative endeavors if a competent teacher has such definite objectives in mind and works with the group toward these objectives not only in some special lessons but during many parts of the day's work.

Such procedures make more stringent demands upon the teacher than simple textbook reading or rote learning in a teacher-dominated situation. Such an approach is characterized by a less obvious directive role and a more challenging and more exacting one in encouraging the students to think for themselves. Emphasis must be placed on encouraging the students to do constructive but critical thinking.

Modern experimental psychologists suggest that all of the transfer effects of learning are possible by calling attention to similarities and by emphasizing generalizations. The more closely an education can resemble the situations in which the consequences of the education will be used, the more productive the education will be. Since it is impossible, and even undesirable to predict the exact nature of the educational needs of students, it seems logical that emphasis should be placed upon the development of varied intellectual operations rather than on the difficult and now impossible goal of "coverage."

An examination of a number of studies and pertinent literature pointed out the desirability of furthering the action research previously carried out by this investigator. In 1956 she began seriously to study the possibility of conducting research within a classroom setting. She undertook an experimental study of the development of critical thinking through the language arts program in the teaching of English in the secondary school, a study which she completed in 1962. Her statistical findings indicated that a conscious effort to incorporate critical thinking in daily instruction can result in observable improvements in the development of varied, specific, separable, and measurable skills, such as the ability to make deductions, to make interpretations, to evaluate arguments, and to recognize inferences, assumptions, bias factors, common fallacies, and propaganda techniques. The greatest gains were made by the experimental group, as compared with the control group, in the DRESSEL-MAYHEW TEST with a difference significant at the .001 level; next in the COOPERATIVE READING TEST with a difference significant at the .05 level; and finally in the WATSON-GLASER CRITICAL THINKING APPRAISAL where the difference favored, though not at a significant level, the experimental group. Favorable comments were

expressed by means of student and teacher questionnaires regarding the experimental instructional method which was devised through a pilot study in 1959 and through two summer workshops with teachers and utilized with the experimental group in 1960-61. The most urgent implication of the study was the fact that teachers need to be alerted and trained to teach for critical thinking. Through ample practice sequentially developed, teachers can provide continuity in improving the intellectual operations of their students.

B. Objectives and Hypothesis

The investigator's position in the Education Department of Loyola University made it possible and practical to attempt to put into action the most urgent implication of his previous study about alerting and training teachers for critical thinking.

The hypothesis upon which this study was based and which guided the research was this: persons aspiring to become teachers of English in high school can be alerted and trained in some of the varied, specific, separable, and measurable skills which are needed for critical thinking and which are relevant to a high school English program; this training should have an effect upon the teachers' abilities to think critically.

The work with the experimental group was based on the conviction that democracy demands of its citizens ability to think clearly, to attack problems intelligently, and to exercise critical judgments. It was hoped that having increased their competence in these skills and having been alerted to the possibility of using critical thinking as an integrating principle of instruction, these future teachers would be in a position to develop in their students some of the varied but identifiable skills of critical thinking needed for effective life in a democracy. Efforts were made to help these teachers incorporate critical thinking into the regular content of the high school curriculum since these skills are much better learned in the pursuit of meaningful problems than in emphasis upon abstract exercises.

## II. METHOD

A. Administrative Procedures Within the University

Prior to this study, Loyola University offered a course, H13: Techniques of Teaching in Secondary Schools, concerned with general methods of teaching rather than with the methods of teaching a particular subject. The Education Department realized that such a course was inadequate for English majors and was willing to allow the experimental procedures described here. This included the formation of a separate section of H13 during both semesters of 1965-66. The students who enrolled in this course during the first semester constituted the control group; the students of the second semester constituted the experimental group. The experimental

design of this study was approved by Dr. Samuel T. Mayo, Director of Educational Research center of Loyola University, and currently the director of the Measurement and Competency Project of the U.S. Office of Education at Loyola. The test data were analyzed by him.

B. Remote Preparation

An important preliminary action was planning a syllabus for this course. The investigator had previously never taught the course. In order to prepare herself for doing this work, she visited a number of institutions in Illinois, Wisconsin and Iowa. She also attended a number of local and national meetings and conventions to enlarge her perspective for the task of training secondary school English teachers. She studied publications of the National Council of Teachers of English, the recent Freedom and Discipline in English. A report of the Commission on English of the College Entrance Examination Board, and various other sources, including materials received as an institutional representative of ISCPET, and textbooks and reference books that might possibly be used for the course.

C. Control of Experimental Variables

The factors which may conceivably affect the results of experimental research are ordinarily too numerous and complex to permit the identification of all of them and no presumption was made that absolute precision would be obtained. Nevertheless, a serious attempt was made to design the experiment in such a way that it would provide for an objective and dependable estimate of error. Two major sources of error of experimentation has to be considered. The first was the possibility that the control and the experimental groups might have been unlike each other in their ability to profit by instruction in critical thinking so that the observed differences in results might have been due entirely to differences in the groups themselves rather than in the method of instruction. The selection factor suggests that this was not the case since all students enrolling for this course were used as subjects. Anyone allowed to enroll for a course in methods of teaching English in high school might be expected to have sufficient ability to fulfill the requirements of the course. An examination of the descriptive statistics which follow reveals that the possibility of this error was negligible.

The second possible source of error was that, in spite of precautions taken, factors other than those involved in the treatments might be permitted to vary from one group to the other during the course of the experiment and that these uncontrolled variations alone or in part accounted for the differences observed. The experiment was designed to eliminate such a possibility by controlling the variables through the following measures:

1. Both groups were exposed to the usual contents of the methods course (methods and materials of teaching language, literature, and composition to high school English students).

2. The same textbook, Teaching High School English by J.N. Hook, was used by both groups. Both groups were encouraged to use materials from the university libraries including the Curriculum Library and the materials in the instructor's office which was adjacent to the classroom.

3. During both semesters provisions were made to facilitate membership in the National Council of the Teachers of English--Junior Membership for those who qualified.

4. Assignments for both groups were similar except when dictated by the experimental procedure, e.g., the control group was asked to submit a teacher's notebook which might be of immediate help when teaching; the experimental group was asked to submit exercises based on specific skills of critical thinking applied to material on a high school level.

5. Classes were held at the same time of day, on the same day of the week, and in the same classroom, although during different semesters. The number of students in both groups was parallel.

6. The course was taught by the same teachers, Sister Mary Constantine, SSJ, from the Education Department, and Dr. James D. Barry from the English Department. It seems logical to assume that both members taught the control and the experimental groups to the best of their abilities. The students' responses on the questionnaires submitted at the end of the semester seem to justify that assumption.

7. Visiting lecturers were invited to speak to both groups. Some of the visiting lecturers were the same for both groups. The inclusion of visiting lecturers decreased the possibility of the instructor variable to operate in favor of either group.

8. Classroom procedured were held constant for both groups, such as: lectures, group discussions, use of audio-visual materials.

9. The same type of student was eligible for the course; i.e., all those enrolling for the methods course.

10. The testing of both groups was conducted under parallel conditions.

11. Both groups were invited to submit an evaluation of the course with the use of the same forms and under the same conditions.

12. Neither group was aware that an experiment was being conducted. The testing was explained in terms of being a part of the efforts of the Illinois State-wide Curriculum Study Center in the Preparation of Secondary School English Teachers.

D. Immediate Preparation

The next step was arranging for or assuring the availability of the various facilities necessary for conducting the study, namely that:

1. The university's audio-visual projectors were available.

2. The rented controlled reader was demonstrated and made available for the use of the students during both semesters.

3. A teaching machine, the World Book Encyclopedia's Cyclo Teacher Learning Aid, was purchased and made available for the students' use in the Curriculum Library.

4. Instructional films were available to and used by the instructors and some of the students. These films were rented from Coronet Film Company, and included the following:

DO WORDS EVER FOOL YOU?
HOW TO JUDGE FACTS
DESCRIBING AN INCIDENT
HOW TO READ POETRY
HOW TO READ ESSAYS
ENGLISH LYRICS
EFFECTIVE CRITICISM
VERBS AND WAYS TO USE THEM
HOW EFFECTIVE IS YOUR READING?
HOW TO READ NEWSPAPERS
LISTEN WELL, LEARN WELL
LET'S PRONOUNCE WELL
HOW TO READ NOVELS
HOW TO STUDY
HOW TO LEARN
IMPROVE YOUR STUDY HABITS
HOW TO READ A NEWSPAPER
EDUCATION IN AMERICA:
THE 17th AND 18th CENTURIES
THE 19th CENTURY
TWENTIETH CENTURY DEVELOPMENTS
WORD BUILDING IN OUR LANGUAGE
PREPARING YOUR BOOK REPORT
READING IMPROVEMENT
EFFECTIVE SPEEDS
WRITING A GOOD PARAGRAPH
WE DISCOVER THE DICTIONARY
THE ENGLISH LANGUAGE: HOW IT CHANGES
THE MATURE READER
CRITICAL EVALUATION
INTERPRETING MEANING
UNDERSTANDING STYLE
COMPARATIVE READING
HOW TO READ PLAYS
POEMS ARE FUN
STORY ACTING IS FUN
HOW TO JUDGE AUTHORITIES
HOW TO READ A BOOK
THE ENGLISH LANGUAGE: STORY OF ITS DEVELOPMENT
NEW DIMENSIONS THROUGH TEACHING FILMS
AUDIO-VISUAL MATERIALS IN TEACHING

5. Numerous books and other materials were procured. These were used in class and students were invited to borrow them. Pockets and cards were inserted for ease of circulation.

6. The holdings of the Curriculum Library were increased to include more material on the level of high school instruction in English.

7. A number of instructional filmstrips were procured for class or individual teacher's use:

LEARNING and TEACHING: Bel-Mort Filmstrip Series
VISUAL AIDS FOR TEACHER TRAINING: The Jam Handy Organization
WORDS: THEIR ORIGIN, USE, AND SPELLING: Society for Visual Education Educational Filmstrips
CONTEMPORARY EDUCATION: National Education Association

8. Over thirty instructional charts for use in teaching the course were prepared during the summer of 1965. These pertained to the philosophy, the psychology, and the methodology of teaching English and were used with a double purpose in mind: to facilitate instruction and to exemplify the use of visual materials in instruction.

E. The Syllabus of the Experimental Group

Basically the experimental group was exposed to the same content of the course entitled Techniques of Teaching in Secondary Schools as was the control group. The syllabus for the experimental group differed in that the topic of critical thinking was incorporated into the course. Following is a list of the major ways in which this was done:

1. A presentation of the need for training students in critical thinking through such quotations as:

> There are few, if any, of us from the most exalted to the most lowly who are not guilty of prejudice, unscientific thinking and action....As long as schools teach for knowledge of facts and principles and not for methods of thinking, students will not learn to think.(17)

2. A study of an analysis of the human mind in terms of contents, operations, and products as given by J.P. Guilford (13), with special emphasis on the following:

Cognition: knowing information.
Memory: retaining information.
Productive thinking: proceeding from given information to some other information.
Divergent thinking: resulting in varied, alternative outcomes; searching, changing routes, yielding multiple answers; e.g., creative performance, fluency of thinking, flexibility, originality.
Convergent thinking: resulting in unique answers; essentially determined by information.
Evaluation: checking and rechecking information, memories, productions; making use of feedback information; checking suitability; employing convergent and divergent thinking.
Education: development of the mind (intellect).

Cognitive view: the organism is an agent that discovers information, remembers information, and uses information in productive thinking (convergent, divergent) and in evaluating any of its intellectual products (units, classes, relations, systems, transformations, implications).

3. An application of Guilford's classification of the operations of thought to the teacher's art of questioning:

a. A presentation of a lecture by Mr. Daniel A. Lindley, "Making Changes in How Teachers Teach," an address which he delivered at the Conference of Supervisors and Consultants, National Council of Teachers of English, November 1965.

b. An invitation to read a number of references, notably: Productive Thinking in Education by Mary Jane Aschner; (3) Reflective Thinking: The Method of Education by H.G. Hullfish and P.G. Smith; (16) Arts of Learning and Communication by Benedict Ashley; (4) and Education for Effective Thinking by William Burton et al. (6)

e. An examination of sample thought questions based on Early American literature, such as:

Does the separation of church and state in America suggest that this country is irreligious? Refute in the light of Early American literature.

Do present troubled conditions in various countries suggest that democracy is the best form of government for every country? Was it the best form for early America? Does the literature of the period give any insight into this problem?

Whether literature is poetic, dialectical, rhetorical, or demonstrative, it often reveals the author's philosophy of life. Explain this thesis by using the work of one or more of the authors studied in this unit.

Make abstracts of thirteen selections, one for each of the thirteen authors listed. Write or type these on separate cards in form of an annotated bibliography.

Study the selections in unit three to determine the end result of the thinking of the author. The concluding statement must in some way involve the title. Examine the end of each selection and determine:

1.) The kind of thinking done by the author
2.) Whether it in some way involves the author

d. Viewing of Bel-Mort filmstrips:
THE LOGICAL DIMENSIONS OF TEACHING
ASKING QUESTIONS
EXPLAINING

4. A study of the possibility of using critical thinking as an integrating principle to which all the educational activities in the English course might be related (9).

5. Students' reading of William Shanner's A guide to Logical Thinking, an elementary explanation of the topic (24).

6. A study of the thought processes of induction and deduction.

7. Identification of some of the specific skills relevant to the province of English instruction:

a. Ability to make deduction and interpretations.

b. Recognition of: Inferences and assumptions
Stereotypes and cliches
Bias and emotional factors
Main point in a selection
Verifiable and unverifiable material
Relevant and irrelevant data
Adequacy and inadequacy of data
Consistency and inconsistency

c. Ability to identify:
Forms of discourse: narrative, descriptive, argumentative, expository
Types of arguments (discourse): demonstrative, dialectical, rhetorical, poetic
Terms: abstract, concrete, descriptive, ascriptive
Fallacies in thinking

8. A study of some of these skills of thinking in terms of:

a. Definition, use of language, fallacies in thinking as explained in Max Black's Critical Thinking (5).

b. Forms and types of discourse as related to reasoning as found in Ashley's Arts of Learning and Communication (4).

c. The complexity of the thought process in reading as described in Mortimer Adler's How to Read a Book (1).

d. "Composing is Thinking" found in J.N. Hook's The Teaching of High School English, chapter 8 (15).

e. The place of critical thinking in outlining, studying, and discussing: Guest lecturer: Sister Mary Fidelia Sertillanges, The Intellectual Life (23).

f. The contributions of semantics to critical thinking as explained by F.A. Philbrick in Understanding English, An Introduction to Semantics ( a book now out of print) (19) (See A-2, p.25.)

g. Fallacies in thinking and propaganda techniques as violations of suspended judgment, criticalness and intellectual honesty, accuracy and true relationship.

h. Techniques of teaching the anatomy of criticism in terms of:
RATINGS--opinions, preferences, acceptances, rejections
REASONS--statements expressing reasons
RULES----to support reasons: criteria or standards of judgments, generalizations; reasons for the reasons; product of agreement among people (2).

9. A study of the topic of critical thinking as it frequently appeared in articles in current issues of the English Journal.

10. Application of the higher thought processes in an Advanced Placement Program in English: Guest lecturer: Sister Mary Bernard
Examination of Advanced Placement materials, including the final examination.

11. A study of critical thinking as related to advertising:
Guest lecturer: Mr. John Crawford
Vance Packard, The Hidden Persuaders (18)

12. Examples of high school students' work:

a. Exercises involving skills applied to the reading of articles in magazines and newspapers.

b. Thought-provoking annotations of literary selections; e.g., comparison-contrast studies of two literary pieces.

13. Presentation of, and invitation to use, numerous books related to the topic of critical thinking (books easily available from an office adjoining the classroom).

14. Motion picture criticism and its relevance to critical thinking:
Guest lecturer: Mr. Rob A. Quarles.

15. The skills of thinking needed for effective use of the dictionary:
Guest lecturer: Mr. Rob A. Quarles.

16. Assignment: composing exercises based on literary selections which demanded specific skills of critical thinking (after examples of such work were studied and demonstrated).

17. An application of the theory of this study to the kind of mid-term examination demanding the higher thought processes of productive thinking, rather than simply a memorization of facts. (See A-3, p.26.)

## III Results

This study was designed to test the effect of a course, which incorporated the element of critical thinking, upon students' abilities to think critically. Results were studied through the use of two tests, an analysis of responses of students to a questionnaire and a study of position papers written by the students at the end of the course.

### A. Test Results.

Both the control and the experimental groups were tested at the beginning and at the end of the methods course by means of the revised edition of the WATSON-GLASER CRITICAL THINKING APPRAISAL Forms YM and ZM (27), respectively, and an adaptation of the DRESSEL MAYHEW TEST (10) (A-4. pp. 27-28). A perfect score for each test was 100.

In the subsequent statistical analysis of the WATSON-GLASER each score was transformed to an equivalent Form AM score for comparability in assessing gains over the semester as suggested in the test manual. For samples of given size one can easily calculate the score difference between group means which would have had to prevail in order for this difference to reach significance at the .05 level. When this was done for the WATSON-GLASER, the experimental and the control groups of 20 and 18 cases respectively, it was found that the score difference had to be numerically equal to 6.59. The initial difference was found to be only 3.48, therefore nonsignificant. This removed the possibility of the first source of error referred to previously regarding the inequality of the two groups. The difference in gains of the experimental over the control group, as shown in the table, was 3.59. The test value against a null hypothesis of zero difference was 1.579, non-signigicant at the .05 level. The difference in performances on the pre- and post-tests, as well as the difference in gains on the DRESSEL-MAYHEW was likewise non-significant.

TEST RESULTS

| Form | Statistic | WATSON-GLASER Group Experimental Pre- | Experimental Post- | Control Pre- | Control Post | DRESSEL-MAYHEW Group Experimental Pre- | Experimental Post- | Control Pre- | Control Post- |
|---|---|---|---|---|---|---|---|---|---|
| | N | 20 | 20 | 18 | 18 | 20 | 20 | 19 | 19 |
| | Mean | 76.65 | 80.35 | 73.17 | 73.28 | 58.60 | 65.35 | 57.68 | 61.74 |
| | Standard Deviation | 8.48 | 8.03 | 11.67 | 10.73 | 11.39 | 9.57 | 18.35 | 19.69 |
| | Gain (Pre-Post) | 3.70# | | 0.11# | | 6.75# | | 4.06# | |
| | Gain (Experimental -Control) | 3.59# | | | | 2.69# | | | |
| YM | Mean | 81 | | | | 76 | | | |
| | %ile* | 75 | | | | 55 | | | |
| ZM | Mean | 78 | | | | 70 | | | |
| | %ile* | 83 | | | | 55 | | | |

# Nonsignificant

* Based upon norms for college senior women

The above table presents the descriptive statistics of the study. On the pre-test of the WATSON-GLASER (form YM) the experimental and control groups began at the 75th and 55th percentile ranks respectively in a norm group of college seniors. The experimental group showed a gain upon post-test from the 75th to the 83rd percentile, while the control group stayed at the 55th percentile with a net gain of zero. Gain for the experimental group of 3.70 raw score points, or almost ½ standard deviation, was not found to be significantly different from zero. The difference in gains between experimental and control groups of 3.59 raw score points was also nonsignificant. The table also shows means for the DRESSEL-MAYHEW for which percentile norms were not available. All gains for the DRESSEL-MAYHEW were found to be nonsignificant.

B. Questionnaire Results

The second means of determining the effect of the variable of critical thinking upon the students in both the control and the experimental groups at the end of their semester's work were invited to complete an anonymous questionnaire for assessing the course. (See A-5, p.29.)

The questions in the course evaluation were general in nature to encourage expression of opinion. It was possible for students to make statements about a given point in more than one place. Even though tabulating became a problem because of the nature of the questions, the amount of information received compensated for this difficulty.

Submitting the evaluations to the instructor was not mandatory. Students were informed that these would not be examined until grades were submitted. About 60% of the students in both groups cooperated by submitting the questionnaires.

1. Responses of the Control Group

Over fifty favorable comments were made by members of the control group indicating that the course met with, or exceeded, their expectations; that they enjoyed the course because it was helpful, interesting, varied, organized, successful; that the instruction was enthusiastic but relaxed; that the work covered a vast area but that nothing was superfluous. Among the specific factors that contributed most were the guest lecturers, especially Dr. Barry's lectures on language and Sister Mary Bernard's presentation of the work in Advanced Placement in English; the variety and amount of materials presented in class in the form of duplicated materials distributed to the class, audio-visual materials presented while teaching or demonstrating, and the variety of reading materials made available for the use

of the students. Many favorable comments were made about the group discussions. Inexperienced teachers in particular found these profitable as they felt free in a small group situation to discuss topics of concern to them.

Comments of a negative nature included the following: five instances expressing a desire for more class discussion; seven instances stating the need of more procedures of a practical nature; three complaints about insufficient use of the textbook; two requests for help in teaching drama; and two expressions about the desirability of extending this methods course to two semesters of work because of the extensive content.

2. Responses of the Experimental Group

The comments of the experimental group were similar to those of the control group. All but two students stated that the course met with or exceeded their expectations. The explanation of the negative responses was that they did not know what to expect from the course. Specific comments regarding the course were: the course was enjoyable, profitable, varied, and flexible in format; it formed a foundation for student teaching; students were allowed to form their own conclusions. Many favorable comments were made about the visiting lecturers. A number of students thought that the lectures on linguistics should be a part of another course thus leaving more time for lesson planning and techniques of teaching. A few students thought that the group discussions could have been more profitable had they been more structured. As in the control group two students thought that the course should be extended over two semesters. Almost 50% of the students made favorable reference to the factor of teaching for critical thinking. This is significant since they were not asked specifically about that topic. One student expressed it in terms of wishing that more courses would introduce teaching in terms of critical thinking.

3. Summary of Students' Evaluations

The students of both the control and the experimental groups were grateful for the establishment of a separate section for English majors taking a methods course. They were overwhelmingly in favor of using varied instructional approaches, such as the use of audio-visual materials, demonstrations, guest lecturers, group discussions, as well as the use of the English Journal and relevant duplicated materials. They appreciated an exposure to various topics and to points of view from varied sources including lectures by qualified persons having theoretical or practical knowledge of the subject. The experimental group expressed appreciation for being exposed to the study of critical thinking and made comments about the desirability of teachers becoming familiar with the area of critical thinking and its applicability to high school instruction.

C. Position Papers

A third measure was taken to help evaluate the effect of the experimental factor upon the students. Both the control and the experimental groups were given one hour at the beginning and at the end of the course to write a position paper identifying what a good high school English teacher is and does. Lest the taking of the critical thinking tests unduly influence the writing of the position papers, these were written before the administration of the tests. One of the main purposes of the position papers was to determine the students' degrees of awareness of teaching for critical thinking as a worthy objective of education. An analysis of these position papers revealed that the control group mentioned the topic fifteen times in the initial papers and seventeen times in the final ones. The experimental group mentioned the topic ten times in the initial papers and thirty-eight times in the final ones. From this evidence the conclusion may be drawn that a conscious effort to alert teachers to the importance of teaching for developing students' abilities to think critically can result at least in teachers' awarenesses of this responsibility.

## IV. DISCUSSION

The abstract nature and the complexity of the operations of the human mind make measurement of those operations difficult. This, no doubt, explains the paucity of standardized tests that purport to measure thinking. After much search, the investigator decided upon the WATSON-GLASER CRITICAL THINKING APPRAISAL and the DRESSEL-MAYHEW TEST, which, among published tests, seemed the most valid, although not entirely satisfactory for the purposes of this study. Another factor which needs to be considered in evaluating the test results is the limitation of time within a methods course that could be devoted to the study of critical thinking. The usual content of the course was not sacrificed; hence it was difficult to find sufficient time to adequately study the various phases of this experimental variable.

In the study which the investigator conducted with 1,000 high school seniors, positive but statistically nonsignificant results were likewise obtained in the WATSON-GLASER CRITICAL THINKING APPRAISAL, which is a power test consisting of five subtests: inference, recognition of assumptions, deduction, interpretation, and evaluation of arguments. When one considers the 180 days (approximately 700 hours) of high school instruction compared to the 45 hours of college instruction for a given course, one is not surprised to find only modest gains in the present study.

These statistically non-significant gains by both the high school and college students suggest that the WATSON-GLASER is a difficult test and, perhaps, not as relevant to an English program as the DRESSEL-MAYHEW, which tests such skills as: finding the main point in a selection, information supporting the author's position, ideas and beliefs which the author takes for granted; identifying stereotypes, biased statements, and unverifiable data; classifying kinds of terms and the form of the discourse. The high school students' gain in the DRESSEL-MAYHEW was highly significant. This can, perhaps, be explained by the fact that the high school students were systematically exposed for the first time to these skills during a whole year. The college students, on the other hand, already possessed these skills to an appreciable degree and hence did not make marked improvement.

The positive gain of the experimental over the control group, even though statistically nonsignificant, seems to have meaning especially when considered in the context of the responses on the questionnaires and the position papers. The oral and written comments of the students concerning the importance, the necessity, and the desirability of teaching for critical thinking suggest that this is a highly worthy objective in teacher training.

## V. CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

The development of a sound comprehensive theory and, through it, the improvement of educational practice are the primary aims of research in education. Both of these aims are important in a teacher-training program and both have motivated the present investigation as an attempt to help teachers to understand better the possibility of the varied operations of the human intellect to be exercised within the context of the usual high school English program.

A basic assumption of this study was that the teacher's performance in the classroom depends upon his understanding of the operation of the human intellect and that, although no subject in itself can be depended upon to improve the thinking of students, almost any subject can and should aid students to acquire that important ability whose operation is essential to personal and societal security. It is regarded by educators as one of the major goals of instruction on all levels. As the foregoing study has shown, it is especially applicable in an English class on the secondary level.

The present experimental research study tested the hypothesis that a conscious effort to alert and train prospective English teachers in some specific skills of critical thinking and in the possibility of using these skills in a high school English program can have a positive effect on the teacher's abilities to think critically.

The positive but statistically nonsignificant results of the testing program bear practical implications. If more valid tests might be found and used, significant results might appear. If more time were devoted to the topic of critical thinking, as was the case in a previous experiment conducted by this investigator with high school seniors, better results might be obtained. Because of the extensive content of the methods course, the limitations of time were too great to study critical thinking and its application to the classroom in depth. The fact that the scores for both tests could be greatly improved suggests that training in these skills is needed. This was corroberated by the teachers' responses in a questionnaire and a position paper written at the end of the course. Their statements revealed that the teachers exposed to such a program became aware and were appreciative of the value and need of teaching that promotes varied skills of thinking.

The immediate implication of this study is that emphasis on teaching for thinking can be given in other courses preparing high school English teachers since the limitations of time do not allow complete coverage of all material in one methods course. The theory of it is usually presented in a course in educational psychology, but this seems to be inadequate since most teachers need help in bridging theory with practice. With a predominant use of the lecture method in college, this bridge is usually not supplied by means of their own educational experiences.

One possibility is offering a separate course in the education department devoted to teaching for thinking within the context of the usual curriculum on the elementary or high school level.

The most urgent implication is that teachers need to be alerted and trained to teach for critical thinking. America needs teachers who are convinced that it is neither wise nor possible to give students all the answers they will need in life and who prepare their students for constant readaptation to new and different problems in this kaleidoscopic world. America needs teachers who know that the aims for thinking are not complicated and that classroom possibilities are vast; who, through specific, direct instruction and ample opportunity for practice and drill, sequentially developed, provide continuity in improving the intellects of their students. America needs teachers who place so high a premium upon the ability to think critically that their students feel responsibility for thoughtful behavior, experience a keen satisfaction of self-realization upon achieving skills in critical thinking, and are able to reconcile the process and the result of critical thinking with their moral convictions.

Ruskin's statement, "The highest reward for man's toil is not what he gets for it, but what he becomes by it," can be applied to such teachers for whom the highest reward for their efforts to teach for critical thinking is not what they or their students get from it, but what they and their students become by it.

## VI. SUMMARY

The Education Department of Loyola University conducted a study which tested the hypothesis that it is possible to train prospective teachers in some of the varied, specific, separable, and measurable skills needed for critical thinking. This was done with the hope that, having been alerted to such skills, these teachers might function more efficiently in a democracy which demands of its citizens abilities of clear thinking, of attacking problems intelligently, and of exercising critical judgments.

Both the control group of the first semester and the experimental group of the second semester were exposed to the usual content of the methods course with the exception of the critical thinking variable of the experimental group. This variable included: a study of the operations of the human mind as defined by J.P. Guilford; the need for the "cognitive" rather than the "stimulus-response bias" in teaching; and some methods and techniques that might be used within the context of a high school English program to develop skills of critical thinking. Some of these skills are: the ability to make deductions, to make interpretations, to evaluate arguments; the power to recognize inferences, assumption, stereotypes, bias, and emotional factors; the capability to point out the main point in a selection; the ability to discriminate between verifiable and unverifiable material, relevant and irrelevant data, adequacy and inadequacy of data, consistency and inconsistency of arguments; the power to identify literature in regard to form (narrative, descriptive, argumentative, expository) and in regard to type (demonstrative, dialectical, rhetorical, poetic); the capacity to identify abstract and concrete, descriptive and ascriptive terms; and facility in recognizing propaganda techniques and common fallacies of thinking.

The effect of such a program was tested by means of the WATSON-GLASER CRITICAL THINKING APPRAISAL and an adaptation of the DRESSEL-MAYHEW TEST. The difference in performance of the experimental over the control group was positive but statistically nonsignificant. If more time might have been devoted to the critical thinking variable, the results might have been more significant.

Two other measures, a position paper and a questionnaire, revealed that the teachers exposed to such a program became more aware and more appreciative of the value and need of such teaching than they had been heretofore and to a greater extent than the teachers who were in the control group. They realized that, since the ability to think critically is an important and pervasive educational objective in a free society, teachers need to be alerted to the skills of critical thinking and taught to use various methods and varied materials possible in an ordinary classroom in order to make the immanent activity of critical thinking function, not merely in some special lessons but during many parts of the day. They agreed that the English classroom provides a wide range of materials and procedures which can be used to promote the improvement of intellectual abilities of students. With the help of Guilford's model of the structure of the intellect they understood why modern experimental psychologists suggest that transfer effects are possible by calling attention to similarities and emphasizing generalizations and that these transfer effects are more readily made possible by developing the skills involved in intellectual operations of productive thinking rather than by simply augmenting intellectual products by "coverage" of facts. Such teaching, they realized, places stringent demands upon the teacher; it calls for creative teaching; it calls for an atmosphere conducive to productive thinking; it calls for the teacher's willingness to continuously think about and thus promote his own critical thinking.

## VII. REFERENCES


1. Adler, Mortimer. How to Read a Book. New York: Simon and Schuster. 1940.

2. Aschner, Mary Jane. "Teaching the Anatomy of Criticism," The School Review. LXIV, 1956. p. 317-322.

3. Aschner, Mary Jane; and Bish, Charles E. (Editors). Productive Thinking in Education. New York: National Education Association and the Carnegie Corporation of New York. 1965.

4. Ashley, Benedict M. The Arts of Learning and Communication. Dubuque, Iowa: The Priory Press. 1958.

5. Black, Max. Critical Thinking. New York: Prentice-Hall, Inc. 1952.

6. Burton, William; Kimball, Roland; Wind, Richard. Education for Effective Thinking. New York: Appleton-Century-Crofts, Inc. 1960

7. Commission on the English Curriculum of the National Council of Teachers of English, The English Language Arts. Champaign, Illinois: NCTE. 1952.

8. Constantine, Sister Mary, SSJ. An Experimental Study of the Development of Critical Thinking through the Language Arts in a High School Senior English Program, Doctoral Dissertation. Loyola University, 1962.

9. Dressel, Paul. Critical Thinking. A Guide to Construction and Evaluation. Michigan State University. 1955.

10. Dressel, Paul; and Mayhew, Lewis B. Critical Thinking in Social Science. Dubuque, Iowa: Brown Company. 1954.

11. Glaser, Edward M. An Experiment in the Development of Critical Thinking. New York: Columbia University Press, 1941.

12. Guilford, J.P. "Morphological Model for Human Intelligence," American Association for the Advancement of Science. CXXXI, April 29, 1960.

13. Guilford, J.P.; and Merrifield, P.R. The Structure of Intellect Model: Its Uses and Implications. Studies of Aptitudes of High-Level Personnel. Reports from the Psychological Laboratory, The University of Southern California, Number 24. April 1960.

14. Henderson, Kenneth B., "Teaching Critical Thinking". Phi Delta Kappan, 39 (March 1958), 280-282.

15. Hook, J.N. "Composing Is Thinking", The Teaching of High School English. New York: The Ronald Press. 1965, Chapter 8.

16. Hullfish, H. Gordon; and Smith, Philip G. Reflective Thinking: The Method of Education. New York: Dodd, Mead, and Company. 1961.

17. Noll, Victor H. "The Habit of Scientific Thinking." Teachers College Record. XXXV. October 1933. p. 1-9

18. Packard, Vance. The Hidden Persuaders. New York; David McKay, Inc. 1960.

19. Philbrick, F.A. Understanding English, An Introduction to Semantics. New York: The Macmillan Company. 1957.

20. Raths, Louis E.; Wasserman, Selma; Jonas, Arthur; and Rothstein, Arnold M. Teaching for Thinking. Theory and Application. Columbus, Ohio: Charles E. Merrill Books, Inc. 1967. p. 335.

21. Russell, David H. "Critical Thinking." Encyclopedia of Educational Research. Edited by Chester W. Harris. New York: The Macmillan Company. 1960. p. 651-652.

22. Russell, David. "The Development of Thinking Processes," Review of Educational Research. XXIII, April 1953. p.142.

23. Sertillanges, A.D. The Intellectual Life, Its Spirit, Condition, Methods. Westminster, Maryland: The Newman Press. 1956.

24. Shanner, William. A Guide to Logical Thinking. Chicago, Illinois: Research Associates. 1954.

25. Smith, B. Othaniel., "A Concept of Teaching," Teachers College Record, Vol. 61, No. 5 (February), 1960, pp. 229-241.

26. Taba, Hilda, Samuel Levine, Freeman F. Elzey, Thinking in Elementary School Children, Cooperative Research Project No. 1574, San Francisco State College, April, 1964.

27. Watson, Goodwin; and Glaser, Edward M. CRITICAL THINKING APPRAISAL, Manual for Forms YM and ZM, New York: Harcourt, Brace & World, Inc. 1964.

## Sources of Audio-Visual Materials

1. Bel-Mort Films, 619 100 Building, 520 South W. 6th Avenue, Portland, Oregon 97204.

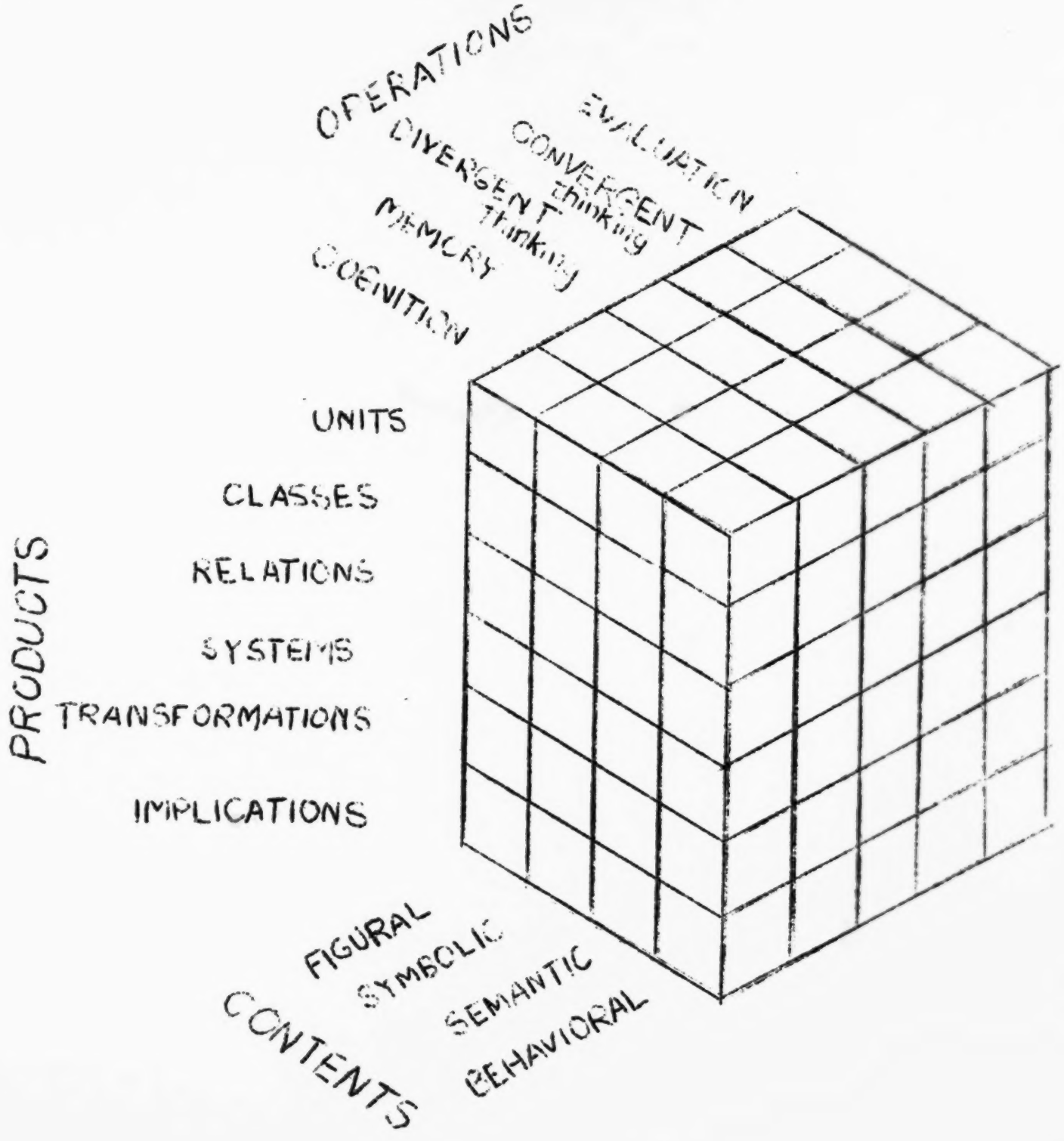
2. Coronet Instructional Films, 65 East South Water Street, Chicago Illinois, 60601

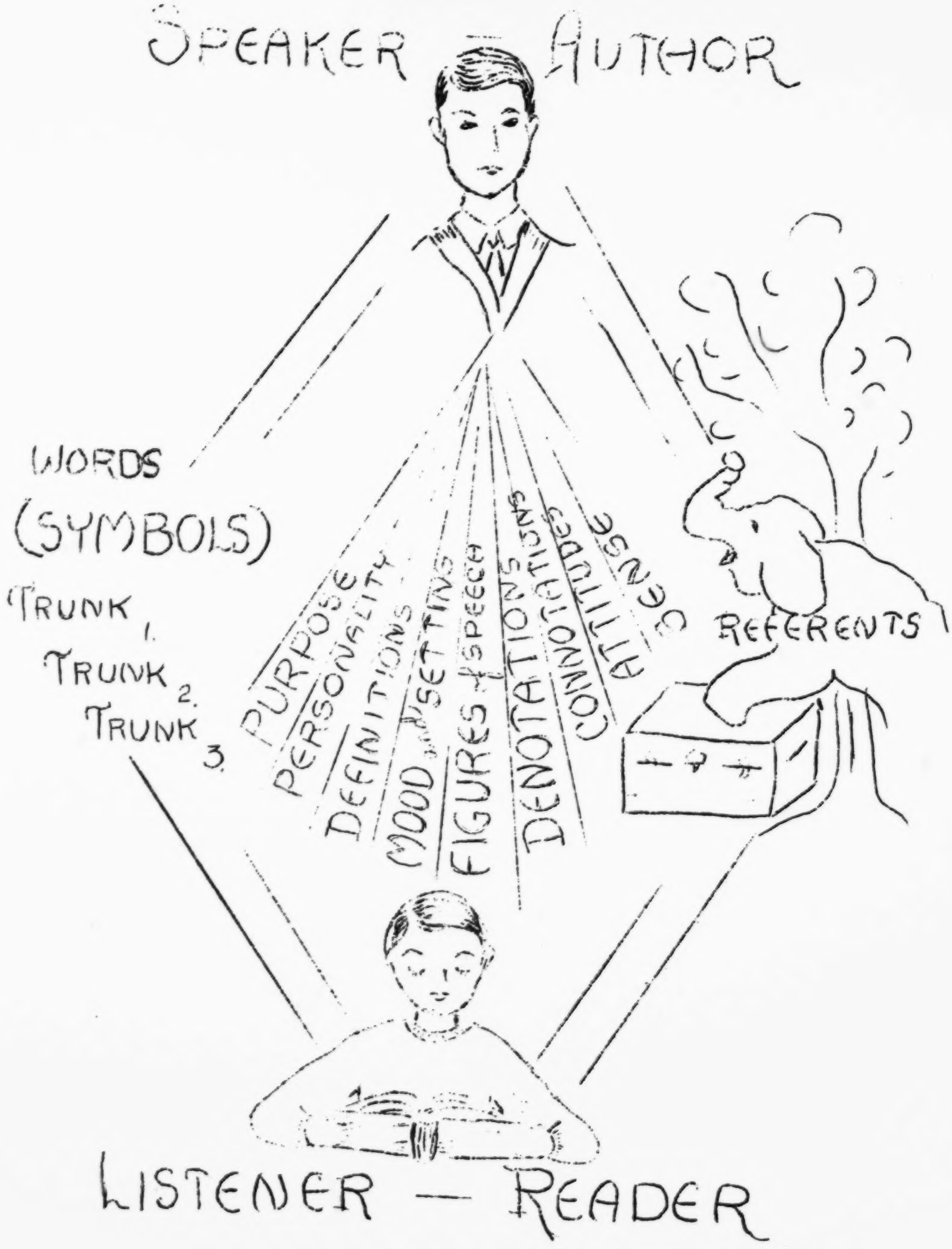
3. The Jam Handy Organization, 2821 East Grand Boulevard, Detroit, Michigan, 48211

4. National Education Association, 1201 Sixteenth Street, N.W., Washington, D.C. 20036

5. Society for Visual Education, Inc. 1345 Diversey Parkway, Chicago, Illinois, 60614.

# STRUCTURE OF INTELLECT MODEL




SPEAKER = AUTHOR
WORDS
(SYMBOLS)
TRUNK 1.
TRUNK 2.
TRUNK 3.
PURPOSE
PERSONALITY
DEFINITIONS
MOOD & SETTING
FIGURES & SPEECH
DENOTATIONS
CONNOTATIONS
ATTITUDES
CENSE
REFERENTS
LISTENER — READER

EXAMINATION QUESTION
(one hour)

The variety of topics discussed in the articles of the January issue of the English Journal suggests the complexity of subject matter within the English curriculum. How can English teachers reconcile this complexity with the additional burden placed upon them as expressed in the following;

> ...democracy at its best demands of its citizens ability to think clearly, to attack problems intelligently, and to exercise critical judgments...at every level of instruction they should have opportunity to set forth their ideas concerning topics of interest to them, to substantiate their statements with evidence, to draw inferences carefully, and to order their ideas clearly for presentation to others. At the same time they should have practice in those skills which freedom of speech and of press demand of the listener and the reader. They should evaluate critically ideas found in newspapers, books, and magazines, heard in discussion or over the radio, or presented on the screen, learning in the process to validate authority, to distinguish fact from opinion, to recognise untoward emotional appeal, and to detect false inferences or unsubstantiated generalizations.
>
> Commission on the English Curriculum of the National Council of Teachers of English, The English Language Arts, p.45

In a well written essay, explain (and/or illustrate) this relevance.

The DRESSEL-MAYHEW CRITICAL THINKING TEST
(adapted and reproduced with the permission of Dr. Paul Dressel)

You will be given an opportunity to read and study a passage of writing and to give your interpretation of it. Read it through to see what is expected of you before beginning.

In the various questions which follow, you will be asked to examine the selection from several points of view. You may answer the questions in any order. There will probably be more things to note under some questions than under others, but you should make your coverage as complete as possible.

## Selection

Those of us who have never been abroad do not realize how much we Americans owe to our competitive enterprise system. A year or so before the Second World War broke out an economist was sent to Europe to find out how much the earnings of the average American factory worker would buy in comparison with the earnings of workers abroad. Certain articles were selected that are used by practically all civilized peoples. In each country the economist visited, he showed the goods of comparable quality available, as was frequently the case he bought the nearest equivalent. He ascertained from the best available official official sources the average wages paid factory workers. For his food comparison he used as his measuring stick a basket containing a selection of twenty-four different foods in ordinary use. The average American family of two adults and three children uses four of these baskets, or the equivalent, every day. To earn these four baskets of food, the investigator found that the average American Worker had to work about 1.6 hours; The British or French worker, 3.2 hours; the Belgian, 3.6 hours; the German 3.9 hours; the Italian, 6.2 hours; and the Russian, 10 hours.

While the United States had one automobile in use for every four persons, the proportion was one to eight persons in France; one to 29 in Sweden; one to 252 in Russia; and one to 1344 in Bulgaria.

Under our competitive enterprise system in America, a thrifty worker does not have to spend every cent he earns to support his standard of living. This is evidenced by the amount of life insurance in force. In the United States life insurance averaged $842 for every man, woman, and child in the country at the time this survey was made. In England the average was $353; in Germany, $117 and in Italy, $36. Along with our industrial progress has come a remarkable expansion in general social welfare. Our hospitals, museums, libraries, and schools are the envy of the civilized world.

A-4
(continued)

There is no need for me to bombard you with further statistics. With all its shortcomings--and there are many because it is operated by fallible human beings--competitive enterprise in America has undoubtedly brought more blessings to the average man than any economic system the human race has yet devised. The men of our farflung military forces are discovering that with their own eyes. Just a few weeks ago a young soldier friend of mine in France, who had probably never been more than a hundred miles from his birthplace in Lancaster, Pennsylvania, wrote me that after seeing the way people lived in Europe, he thanked God that he had a country like America to come home to. As a matter of fact, he never will come home because he lies tonight in some lonely grave on the German front where he was killed in action in November....

1. List any stereotypes or cliches which you can find in the selection.

2. List any examples you can find of emotional or biased statements in the selection.

3. Does the selection present unverifiable data as though they were facts? If so, list them.

4. What is the main point in this selection?

5. Are the facts which are presented in the selection as supporting the author's position pertinent to his argument? Explain.

6. What additional information is needed before passing judgment upon the author's position? Or, do you think enough data have been provided?

7. Is the presentation consistent? If not, list examples in inconsistencies.

8. Judging the selection as a whole, what are some of the ideas and beliefs which the author takes for granted?

9. What form of discourse is this selection (narration, description, argumentation, exposition)? Give reasons for your answer.

10. What kind of terms (concrete or abstract) are used in this selection?

A-5

COURSE EVALUATION

Course Number _____ Date_____

Your candid evaluation of this course may help in building a better curriculum for future classes. You need not sign this paper if you do not care to.

1. Did this course meet with your expectations? Did it exceed them? How?

_____

_____

_____

_____

2. Identify special areas, features, techniques, etc. that were valuable.

_____

_____

_____

_____

_____

3. Identify special areas, features, techniques, etc. that were less valuable, superfluous, neglected._____

_____

_____

_____

4. Have you any suggestions for improving the course?_____

_____

_____

_____

5. Please feel free to make further criticism, either positive or negative._____

_____